Optical Fibre Splicer

(Job Role)

(Qualification Pack: Ref. Id. TEL/Q6400)
Sector: Telecom

Textbook for Class IX

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

First Edition
July 2020 Shravana 1942

PD 5T BS

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₹ 135.00

Printed on 80 GSM paper with NCERT watermark

Published at the Publication Division by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi 110 016 and printed at Goyal Stationers, B-36/9, G.T. Karnal Road Industrial Area, Delhi - 110 033

ISBN 978-93-5292-330-4

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FOREWORD

The National Curriculum Framework–2005 (NCF–2005) recommends bringing work and education into the domain of the curricular, infusing it in all areas of learning while giving it an identity of its own at relevant stages. It explains that work transforms knowledge into experience and generates important personal and social values such as self-reliance, creativity and cooperation. Through work one learns to find one's place in the society. It is an educational activity with an inherent potential for inclusion. Therefore, an experience of involvement in productive work in an educational setting will make one appreciate the worth of social life and what is valued and appreciated in society. Work involves interaction with material or other people (mostly both), thus creating a deeper comprehension and increased practical knowledge of natural substances and social relationships.

Through work and education, school knowledge can be easily linked to learners' life outside the school. This also makes a departure from the legacy of bookish learning and bridges the gap between the school, home, community and the workplace. The NCF–2005 also emphasises on Vocational Education and Training (VET) for all those children who wish to acquire additional skills and/or seek livelihood through vocational education after either discontinuing or completing their school education. VET is expected to provide a 'preferred and dignified' choice rather than a terminal or 'last-resort' option.

As a follow-up of this, NCERT has attempted to infuse work across the subject areas and also contributed in the development of the National Skill Qualification Framework (NSQF) for the country, which was notified on 27 December 2013. It is a quality assurance framework that organises all qualifications according to levels of knowledge, skills and attitude. These levels, graded from one to ten, are defined in terms of learning outcomes, which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. The NSQF sets common principles and guidelines for a nationally recognised qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities.

It is under this backdrop that Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, a constituent of NCERT has developed learning outcomes based modular curricula for the vocational subjects from Classes IX to XII. This has been developed under the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education of the Ministry of Human Resource Development.

This textbook has been developed as per the learning outcomes based curriculum, keeping in view the National Occupational Standards (NOS) for the job role and to promote experiential learning related to the vocation. This will enable the students to acquire necessary skills, knowledge and attitude.

I acknowledge the contribution of the development team, reviewers and all the institutions and organisations, which have supported in the development of this textbook.

NCERT would welcome suggestions from students, teachers and parents, which would help us to further improve the quality of the material in subsequent editions.

HRUSHIKESH SENAPATY
Director
National Council of Educational
Research and Training

New Delhi
January, 2018

ABOUT THE TEXTBOOK

The Telecom industry in India is growing exponentially and it is the second largest in the world with a subscriber base of over 1.2 billion.

The telecommunication sector is made up of companies that make communication possible on a global scale, whether it is through the phone or the Internet, through airwaves or cables, through wires or wirelessly. These companies created the infrastructure that allows data in words, voice, audio, or video to be sent anywhere in the world. The largest companies in the sector are wireless operators, satellite companies, cable companies, and internet service providers.

The telecommunications sector evolved from the telegraph—the first mechanical device meant for communication. The technology has improved the communication speed tremendously over a period of time. At one time, telecommunications required physical wires connecting homes and businesses. In contemporary society, technology has gone mobile; digital, wireless technology is becoming the primary form of communication.

The telecommunications sector consists of three basic sub-sectors—telecom equipment (the largest), telecom services (second largest) and wireless communication. The wireless communication is the fastest-growing area in this sector. The sector's biggest challenge is to keep up with people's demand for faster connections.

Optical Fibre Splicer is responsible for ensuring efficient splicing of the optical fibre cables and supports in optical fibre installation and in carrying out fibre testing using Optical Time Domain Reflectometer (OTDR) and power meter. This job requires the individual to work in field set-up and be able to handle pressure situations. The splicer should have basic written and oral communication skills and should be able to apply practical judgement to successfully perform the assigned responsibilities.

The textbook has been developed by the coordinator for making it a useful and inspiring teaching-learning resource material for the vocational students. Adequate care has been taken to align the content of the textbook with the National Occupational Standards (NOSs) for the job role so that the students acquire necessary knowledge and skills as per the performance criteria mentioned in the respective NOSs of the Qualification Pack (QP).

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The textbook has been reviewed by experts to make sure that the content is not only aligned with the NOSs, but is also of high quality. The NOSs for the job role of Optical Fibre Splicer covered through this textbook are as follows

1. TSC/N6400 Undertake splicing of optical fiber
2. TSC/N6401 Installation and Commissioning of Optical fiber cables (OFC)

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ACKNOWLEDGEMENTS

The National Council of Educational Research and Training (NCERT) expresses its gratitude to all members of the Project Approval Board (PAB) and officials of the Ministry of Human Resource Development (MHRD), Government of India, for their cooperation in the development of this textbook. The Council also extends gratitude to all the contributors for sharing expertise and valuable time by positively responding to the request for the development of this textbook.

The NCERT acknowledges the contribution of the Review Committee members Kamlesh Mittal, *Professor* (Retd), NCERT, New Delhi and Aarti Goel, *Assistant Professor,* Hansraj College, University of Delhi for carefully evaluating and giving suggestions for the improvement of this book. The guidance provided by Prakash Khanale, *Professor* and *Head*, Department of Computer Science, DSM College, Parbhani is thankfully acknowledged.

The Council would like to thank Rajesh Khambayat, *Joint Director*, Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal for providing support and guidance in the development of this textbook.

We are thankful to the course coordinator Deepak D. Shudhalwar, *Professor* and *Head*, Department of Engineering and Technology, PSSCIVE, NCERT, Bhopal for developing the textbook and providing the photographs.

The Council is grateful to Saroj Yadav, *Professor and Dean* (A), NCERT, and Ranjana Arora, *Professor and Head*, Department of Teacher Education, for their sincere efforts in coordinating the review workshops for the finalisation of this book. The Council acknowledges the copy editing and valuable contribution of Soumma Chandra, *Assistant Editor* (Contractual) and Lalboy Doungel, *Proofreader* (Contractual) in shaping this book. The efforts of Pawan Kumar Barriar, *DTP Operator,* Nitin Kumar Gupta, *DTP Operator,* (Contractual), Publication Division, NCERT, for flawless layout design are also acknowledged.

The Council is grateful to the Ministry of Human Resource Development for the financial support and cooperation in realising the objective of providing a quality textbook for the Indian vocational students.

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"A peace that comes from fear
and not from the heart
is the opposite of peace."
- Gersonides

Peace is
a never ending
process...
It cannot
ignore
our differences
or overlook
our common interests.
It requires
us to work
and live together.
- Oscar Arias Sanchez

Anhad
Act Now for Harmony And Democracy

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